DISCUSSION

This study first measured the level of free dopa and 5-S-CD in mouse hair and melanomas. The black hair from C57BL mice and the yellow hair from C57BL *A^y/a* mice served as good models for eu- and pheomelanogenesis, respectively [7]. In the mouse hair, the catechol levels reflected well the type of melanogenesis: dopa was found both in eumelanic and pheomelanic hair, whereas 5-S-CD, the ultimate precursor of pheomelanin, was found only in pheomelanic hair at a high level. In contrast, we did not find any significant difference in the levels of these catechols between B16 and HP melanomas, either when intact melanomas were used or when their subcellular fractions were employed. There was, however, a significant difference in the 5-S-GD level between B16 and HP melanomas. This finding may reflect, in part, the observed difference in melanosome synthesis between the two tumors, though, at present, very little is known about the role of this catechol in the regulation of melanogenesis [1].

We also analyzed comprehensively the levels of protein-bound dopa and 5-S-CD for the first time. The occurrence of bound dopa was first reported by Takahashi and Fitzpatrick [8]. They found large amounts of bound dopa in HP melanoma (230 μg/g), but rather small amounts in B16 melanoma (10 μg/g). Their value in HP melanoma was some 10 times higher than our value; the reason for this discrepancy is not clear at present. Agrup et al [9] have reported the presence of bound 5-S-CD in human melanomas. In this study, there were no significant differences between B16 and HP in the levels of protein-bound dopa and 5-S-CD in melanosomes or tumors.

Finally, it was found that the concentrations of both free and protein-bound catechol amino acids in melanosomes were not significantly different between B16 and HP melanomas. It thus seems that the striking difference in color between B16 and HP melanosomes is primarily related not to the type but to the content of melanin pigments, which was 3–4 times higher in B16 melanoma than in HP. It is necessary to analyze melanin itself to better understand to what extent the morphologic differentiation of melanosomes determines the type of melanogenesis and quantity of melanin(s) produced therein. Studies toward achieving this objective are now in progress.

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Change of "Call for Abstracts" Data

Abstracts for the *Annual Meeting of the British Society for Investigative Dermatology* should be submitted on the new official form and must be received by Dr. R. A. J. Eady by *June 17th, 1983* (not July 8 as published in the January issue).

A *Course on Practical Skin Pathology*, sponsored by the Department of Dermatology, New York Medical College–Metropolitan Hospital Center, New York, and approved by the American Medical Association and the American Academy of Dermatology, will be given at Grossinger's, Liberty, New York, August 28 to September 2, 1983. For information: Martin H. Brownstein, M.D., Skin Pathology Course, 2 Jordan Drive, Great Neck, New York 11021 (516/829-8578).
